

**ABSTRACT**

A method is disclosed of associating a mapping function with a configuration construct of a digital design defined by one or more hardware description language (HDL) files. According to the method, in the HDL files, a configuration latch is specified within a design entity forming at least a portion of the digital design. In addition, a Dial is specified that defines a relationship between each of a plurality of input values and a respective one of a plurality of different output values. The HDL files also include a statement that instantiates an instance of the Dial in association with the configuration latch such that a one-to-one correspondence exists between a value contained within the configuration latch and an input value of the instance of the Dial. The HDL files further include a statement associating the Dial with a mapping function that applies a selected transformation to values read from or written to the instance of the Dial.